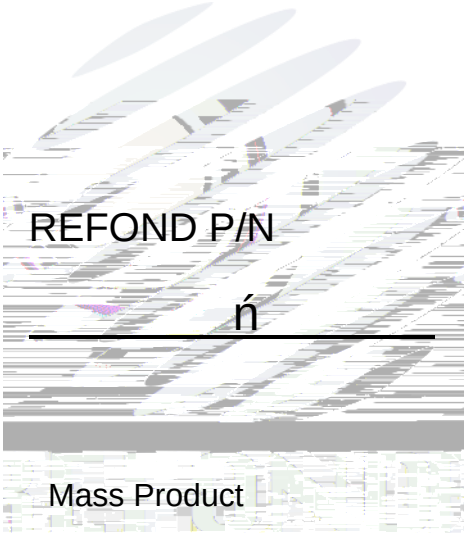
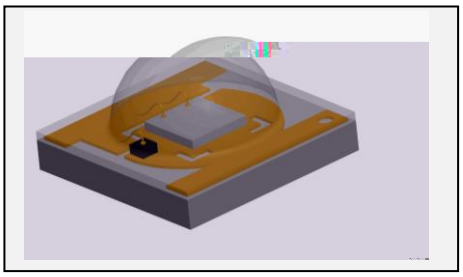
SPECIFICATION



Contents

1. Description

1.1 General Description



This production use the ceramics and Silicone molding package˘ outline size 3.45X3.45X2.95mm

3.45X3.45X2.95mm

1.2 Features

► Ceramic and silicone molding package.

► Viewing angle:60°.

► Suitable for all SMT assembly and solder process.

► Available on tape and reel.

► Moisture sensitivity level: Level 3.

► RoHS compliant.

1.3 Application

► UV Curing.

► UV Ink Curing.

► Ultraviolet disinfection.

► Medical treatment and health.

► General use.

1.4 Package Dimension

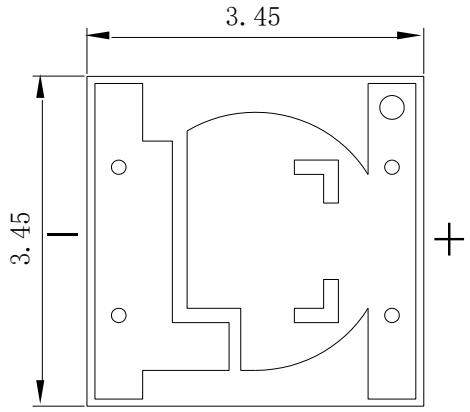


Fig.1-1 Top view

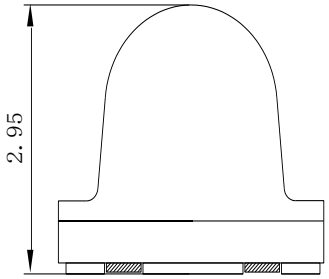


Fig.1-2 Side view

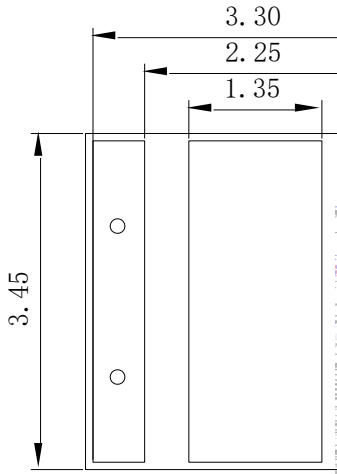


Fig.1-3 Bottom view

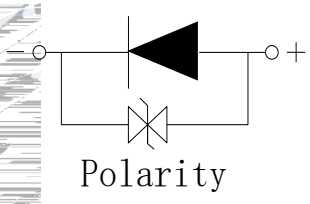


Fig.1-4 Polarity

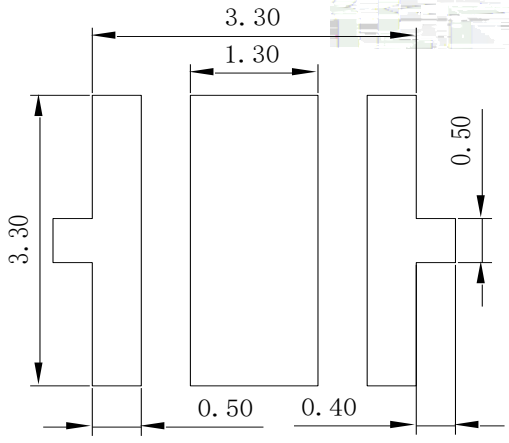


Fig.1-5 Soldering patterns

Notes

All dimensions units are millimeters.

All dimensions tolerances are ±0.2mm unless otherwise noted.

1.5 Product Parameters

Table 1-1 Electrical / Optical Characteristics at Ts=25°C

Item	Symbol	Test Condition	Code	Value			Unit
				Min.	Typ	Max.	
Forward Voltage	V_F	I_F=500/700mA	B11	3.0	---	3.2	V
			B12	3.2	---	3.4	
			B13	3.4	---	3.6	
			B14	3.6	---	3.8	
Reverse Current	I_R	V_R=5V	---	---	---	5	uA
Total radiant flux RC35E6-UBE-AR (365-370nm)	Φ_e	I_F =500mA	1E47	575	---	675	mW
			1E48	675	---	800	
			1E49	800	---	940	
Total radiant flux RC35E6-UEE-AR (380-390nm)	Φ_e	I_F =700mA	1E50	940	---	1110	mW
			1E51	1110	---	1310	
			1E52	1310	---	1545	
Total radiant flux RC35E6							

Table 1-2 Absolute Maximum Ratings at Ts=25°C

Parameter	Symbol	Item	Rating	Units
Maximum Power Dissipation	P_D	365-370nm	1.9	W
		380-410nm	2.6	
Peak Forward Current	I_{FP}	365-370nm	500	mA
		380-410nm	700	
Reverse Voltage	V_R	ALL	5	V
Electrostatic Discharge (HBM)	E_{SD}	ALL	2000	V
Operating Temperature	T_{OPR}	ALL	-20 ~ +65	Ņ
Storage Temperature	T_{OPR}	ALL	-20 ~ +80	Ņ
Junction Temperature	T_J	ALL	105	Ņ

Notes

1. 1/10 Duty cycle, 0.1ms pulse width.
2. The above forward voltage measurement allowance tolerance is ±0.1V.
3. The above wavelenth measurement allowance tolerance is ±2nm. ±
4. The above radiation flux measurement allowance tolerance ±10%.
5. Care is to be taken that power dissipation does not exceed the absolute maximum rating of the product.
6. All measurements were made under the standardized environment of Refond.
7. When the LEDs are in operation the maximum current should be decided after measuring the package temperature, junction temperature should not exceed the maximum rate
8. ESD yield is over 90% at 2000V ESD (HBM). ESD protection during products handing is needed.

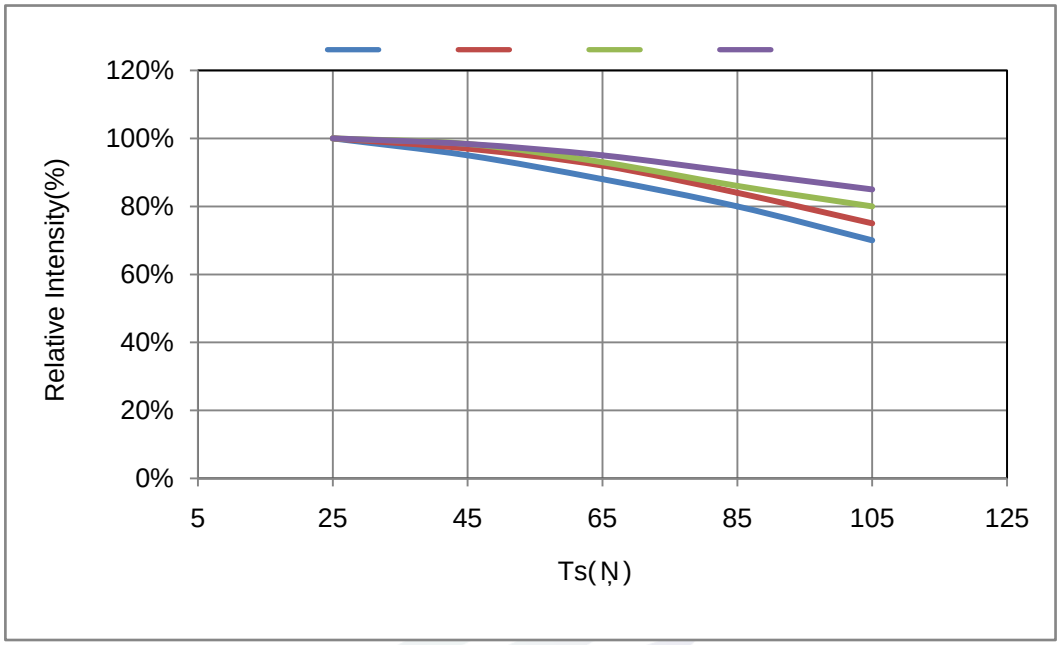


Fig.3-Solder Temperature VS. Relative Power

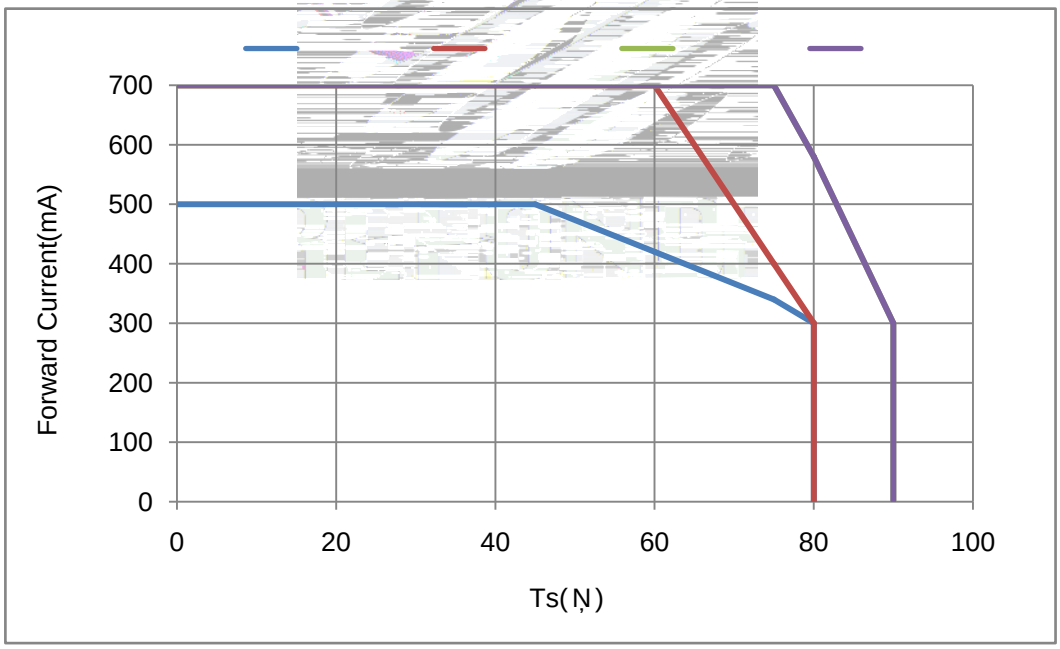


Fig.4-Ts Temperature VS. Forward Current

Fig.5-Spectrum Distribution

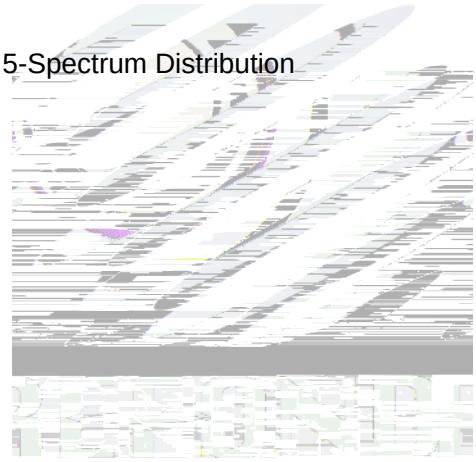


Fig.6- Radiation Diagram

2.1.3 Label Form Specification

PART NO.
SPEC NO.
LOT NO.
BIN CODE'
Φ_e' WLP'
V_F'
QTY:
DATE:

Fig. 2-3 Label Form Specification

Label Form Specification

PART NO.	Part Number
SPEC NO.	Spec Number
LOT NO.	Lot Number
BIN CODE	Bin Code
Φ_e	Radiation flux
V_F	Forward Voltage
WLP	Wavelength
QTY	Packing Quantity
DATE	Made Date

2.2 Moisture Resistant Packing

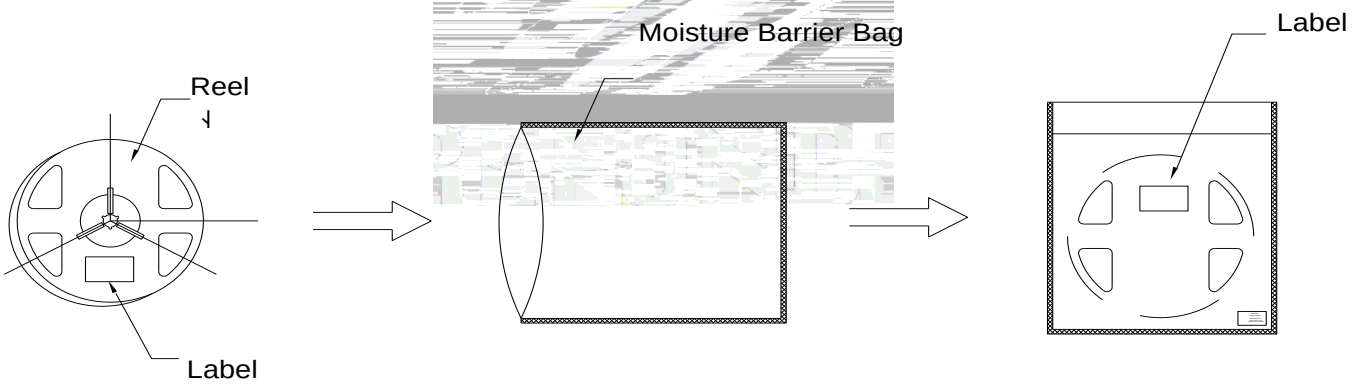


Fig.2-4 Moisture Resistant Packing Process

2.3 Cardboard Box

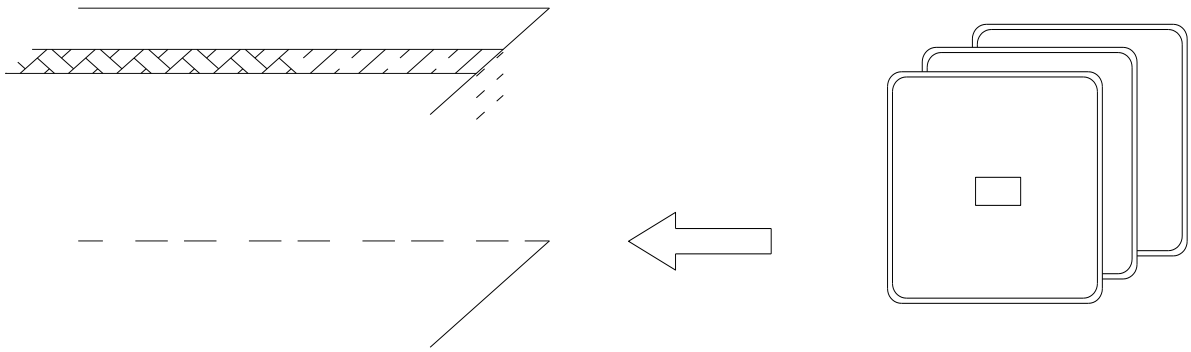


Fig.2-5 Cardboard Box

2.4 Reliability Test Items And Conditions

Table 2-3 Reliability Test Items And Conditions

Test Items	Ref.Standard	Test Condition	Time	Quantity	Ac/Re
Reflow	JESD22-B106	Temp:260℃ max T=10 sec	3times.	10Pcs.	0/1
Thermal Shock	JESD22-A106	-40℃ 15min ↑↓10s 100℃ 15min	100 Cycles	10Pcs.	0/1
Life Test	JESD22-A108	T_a=25℃ I_F=500/700mA	1000Hrs.	10Pcs.	0/1

2.5 Criteria For Judging Damage

Table 2-4 Criteria For Judging Damage

Test Items	Symbol	Test Condition	Criteria For Judgement	
			Min.	Max.
Forward Voltage	V_F	I_F=500/700mA	-	U.S.L*)x1.1
Reverse Current	I_R	V_R = 5V	-	U.S.L*)x2.0
Total radiant flux	Φ_e	I_F=500/700mA	L.S.L*)x0.7	-

Notes

1.U.S.L: Upper standard level L.S.L: Lower standard level

2. The above reliability tests is based on the verification of a single/strip LED of Refond's existing experimental platform, the reliability experiment was taken under good heat dissipation conditions. when customers applies the LED to the series and parallel circuit, should take consideration of all the factors such as the current, voltage distribution, heat dissipation and others.

3.The technical information shown in the data sheets is limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.

3. SMT Reflow Soldering Instructions SMT

Tel: +86-755-66839118 Fax:+86-755-66839300 E-mail:uv

4. Handling Precautions

Table 4-1Storage

Conditions		Temperature	Humidity	Time
Storage	Before Opening Aluminum Bag	30	75%	Within 1 Year From Date
	After Opening Aluminum Bag	30	60%	24hours 24
Baking		60 5	-	24hours 24

(8) If the moisture absorbent material silica gel has faded away or the LEDs have exceeded the storage time, baking treatment should be performed after unpacking and based on the following condition 65 5 for above 24 hours.

If the package is flatulence or damaged, please notify the sales staff to assist.

(9)Similar to most Solid state devices; LEDs are sensitive to Electro-Static Discharge (ESD) and Electrical Over Stress (EOS).

(10) When using this product, you need to take good care to prevent it from causing harm to eyes and human body.

(11) Other points for attention, please refer to our relevant information.

Version History/

Date	Revisor	Version	Verifier	Remarks
2020-05-20		E4		

Declare

This specification is written both in English and in Chinese and the latter is formal.